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1/42

SEQUENCE LISTING

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<120> Methods for Distinguishing Rice Varieties

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<141> 2003-06-10

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<160> 114

<170> PatentIn Ver. 2.1

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<212> DNA
<213> Oryza sativa

<220>
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hit, mmm, fom, don, or ssk"
/note=" "c" replaced with "t" "

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hit, mmm, fom, don, or ssk"
/note=" "a" replaced with "g" "

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<222> (593)
<223> /cultivar="ksh, krr, tgr, mnk, yma, tkh, akk, mtb,
hit, mmm, fom, don, or ssk"
/note=" "c" replaced with "t" "

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ttcgtttcaa caaacaagat ataaagttca accagatttt acatttttga aaacctttta 180
tctttacata tatcagtggg ggagttgaaa tgggagatac atcaactcta aattagagaa 240
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ttcagtgaca cattgggttg atttagcgac ttcaaacctt ttgtcttctt ttccattttt 360
caaatttcta gctctacaac taattcaatg actactcagt ttaaaacaaa acaaattggaa 420
gattgggttg gagattttaag aagaaacttg ccaggtggtg gcttggtccg tggagggaaag 480

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agggctcagg ggctaaccac ctcgcaactt agggctctgg cctccgtctc ccgccttttc 540
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ccgcgtcggg cgtccgggcg gcgtcgtggt tcggggggact gagggcagct actcagctag 660
accgctggag cccaaaggaa tctaaggtta catgctgtct tgttgagcct attttatggg 720
cctgcgactt tgcagtttagc cgaggcatat tggaataaat ttaatttagg tctctcaatt 780
tgtcgtcgag cctgaaattc atcactggac cgcaaaacta gatacatcgc attccccaac 840
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<210> 2
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<212> DNA
<213> Oryza sativa

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<222> (304)
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      akk, hnh, hit, mmm, fom, or ssk"
      /note=" "a" replaced with "t" "

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gggccctact ctctttgggc cagcatgtca gtgtcagcag aggatctcat tcctacagtc 180
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ttttggacgg aggggtatat ataaacaaag aaaaagcact gtaggtacat aatatagtac 300
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tgttgctact gcagttaatt ggctctgggt gcttttggtg atctgttgct actgcagtta 420
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ctcttttata atttctgcag taagcttgaa acataagtag aactgccc atattaaaca 600
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agttcaaggc agccacaacc acatacaggc gatccatata ttgatttata tatctgatcc 720
gtttgttgag gttggtgcat caatcccccc tgaagcagct atgtcgagcc taattgcat 780
ttgattaatc aatttttctc atccaacgat ttaattatgc gtgattttta tgattcgatc 840
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<213> Oryza sativa

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      fom, don, knh, or ssk"
      /note=" "a" replaced with "t" "

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<220>
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<222> (356)
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fom, don, knh, or ssk"
/note=" "a" replaced with "g" "

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fom, don, knh, or ssk"
/note=" "g" replaced with "a" "

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<222> (514)
<223> /cultivar="ksh, hts, mth, yki, krr, tgr, ghm, mnk,
yma, hez, akk, ash, ank, mtb, hnh, ymt, hit, mmm,
fom, don, knh, or ssk"
/note=" "c" replaced with "t" "

<220>
<221> variation
<222> (515)
<223> /cultivar="ksh, hts, mth, yki, krr, tgr, ghm, mnk,
yma, hez, akk, ash, ank, mtb, hnh, ymt, hit, mmm,
fom, don, knh, or ssk"
/note=" "a" replaced with "g" "

<220>
<221> variation
<222> (552)
<223> /cultivar="ksh, hts, mth, yki, krr, tgr, ghm, mnk,
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fom, don, knh, or ssk"
/note=" "c" replaced with "t" "

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<222> (695)
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yma, hez, akk, ash, ank, mtb, hnh, ymt, hit, mmm,
fom, don, knh, or ssk"
/note=" "a" replaced with "g" "

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acttcttatt tctagctgac ataatgagga ttgaggaaat aagtgtcttc ctatttcata 180
aacaaaagaa aagtaatttg agtcaaacag tcacatcact atttaagttt tgattcaatc 240
gatagtttga ttcatattac atctactatt tgatacgaga ctcaatgtct caactcttaa 300
gtctaaaagt aactttccaa tgctgcacaa aggtagtagt cagggacacg aagataagtg 360
gatgagaggc actgacaaag gtagccggcc aaccgcttgg cattgatggc gcttgcccgt 420
tggtcgctcg ctgcctcgtg ttgggctggg gtcgggactt tgcaggcatc gtcatttcat 480
cgtcgaattt gaaatcgaga ttgactccag tcacacgaca tgactacaca acagtgtgac 540
ttgatctcgt tcgcctctca gcctccaatg cacctgatgg cagatgggcc tctctaatacg 600
attcacaggt agaagcagga ttgtggctcg gctatgcatt aatgtgcgcc tctccgatta 660
acttgggtgc cccaaaaaaa ttggggggaca ctctatcatc gccaatgtcg cacacaacct 720

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tcgacaggct tgcccattag tgtgacactc ctgcccacat cactgctcca ttgtcatcca 780
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<212> DNA
<213> Oryza sativa
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<221> variation
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<223> /cultivar="ksh, ymt, don, or knh"
      /note=" "t" replaced with "c" "
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tcctatataa atcctttgat tcaaagggcc ctaagtttcg tacgtgtgca actgtgcatc 180
cagcacgtac tactacgtac tcctatgtac ttgtagtggg gtagcctata catatgcatg 240
aagcgttcca ggaaaaatag gagtctcagt aattttgtgca ggcattgcggc ccatggagta 300
atagaccatg ctgaataatt tcagttcaaa tttcatactc caactgtaat accatacgca 360
aaccatcaac ttacaatact gatatacttg acatttcaaa ataacatagc ctttgggtttt 420
agctgacgta gcgactgagt aagctagcac gaggctcata tgggtcccac atgtcagcgg 480
cccaatcttc ttccacatct ctctctctct cccaatccta atctctctcc atgcctctag 540
gggtggtggg gtgggaagaa gctcgacagc ggtggccaac acatacgcaa ggagaagctc 600
gaggactgca agacgacttt cttttcgcct accactggaa ggcaacacct tgtttccctg 660
ccttctagtt gagcgaggac actgaatgca tggagggtgt gtgacccaaa tctacggcag 720
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gttttctcaa tacagctgga gtatatatac tcacgcactc caccctctct gcccttaggg 900
cccaccttgt catagacact tctatctata aagagtagaa gatgtattca cttctgaaaa 960
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<210> 5
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<212> DNA
<213> Oryza sativa
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      fom, or don"
      /note=" "t" replaced with "c" "
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cgtacaactc acgtctgacc agcacttagc tgctaattgc cctagccaca tggagagaag 120
ttggtctgcg tgaagcgtaa cgattggcag ataaagtgtg attggatggg aatcggacga 180
gggagtcgaa cgtatagcaa cactccagaa gtaaagcagt aaaccgaaaa agttttgcta 240
tcacttgtat gaccgtctcc acaagtggcg actggcacga catggccact cgacagaacc 300
gcacaacaaa tgctgatcct ttgcccctat tccatgcgaa gttgcgactt gcgagtcttt 360
gggcagggga tgcactactg acaagatgaa agaagaaaat caaccgtaat tcgggcgtgc 420
actgctgcag aatagtcctt gtgatcatgt ccatgtgacc atgttcgtta cgttctgagg 480
cgtcgatagc gagcgatgct ggtaatcgtg accaatctcg ttcacgtcca ccttggtgac 540
gcgcacgtac gtcgctatat atgacaacgt cctgctacat atagccttgc tcactttcgg 600
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actttgacgt atgtgaagag agcagcacta ggagccacta atcatatggt ttggtacatg 660
agaggatatg catgtttcac tttgcaccca acatgtactg tactcatcta gtcacccctac 720
tagtattttc catcggtgtc cctttctcct gtgatctctc gctttgcaca caaacctcgc 780
aacaaaacgg tctcgctgtc gcctttcagc gcttcggcaa aggattggtc ggttcatgag 840

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<212> DNA
<213> Oryza sativa

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ank, hnh, ymt, hit, mmm, fom, don, or knh"
/note=" "a" replaced with "g" "

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<220>
<221> variation
<222> (624)..(626)
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ank, hnh, ymt, hit, mmm, fom, don, or knh"
/note=" "tgc" deleted"

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agaaggtgca gttgttcact tgttcctggc atcaacgtgt acggttgaac aaatcggtgg 180
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gaaccgagat cttcttggcg ctgtcagcct gtcacaaaact cgcaatccaa ttgcaacttc 420
agcggttgag caggttcaat tcaacatgac tttcatcagg agatggtaag ttaggaacag 480
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tcctcatcga ctggatactt cagaaacaag cataacagta gcattggagc aaaggacaca 600
gcatggctag aagtagatgc tgctgcctag agatatcatc tcgaattcat ggcatgaaca 660
aacgtcggtt atgcagccat gcaggaataa taagctcaga acaggattca ggacaaattc 720
aagctatcta caagcttgcc agcatcatca tattataata attgctttaa tagtcagcaa 780
actcgtacag aatagccaga tccaaatttc cacaaactat atatcatcat caggaatttt 840
aaaaagagaa ctcggaatcg atttcgcatg atattcgagg acaccaagc caaactgacg 900

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<210> 7
<211> 900
<212> DNA
<213> Oryza sativa

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/note=" "a" replaced with "c" "

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<221> variation
<222> (341)..(342)

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/note=" "tg" replaced with "tgtg" "

<220>

<221> variation

<222> (534)

<223> /cultivar="hts, mth, yki, krr, mnk, hez, ksh, akk,
ank, hnh, ymt, hit, mmm, fom, or knh"
/note=" "a" replaced with "c" "

<400> 7

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agaaccagta cattatctct atctgtgaca gagaacacaa gaatgcaa atgctgataaa 180
aatcaagaaa gcattgtgca agcagcaagg tgagtagaga gtgatggaag cagagagaag 240
ctgcagacta gtgatgaaaa tgattgggtga gtacagtgtg acaactaaca acaagtctct 300
atgaagaagc aggtactaag catgcatgtg tgtgtgtgtg tgatggcatg tggatcaaat 360
gcttctgggg ttgttctact gtccaccaga gcaaccagga caagtcttct cactctacca 420
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tccctcacct gtttctctct caagagagag gaggaggtgc acaggcacag acagctcaca 600
caaacattgt gttgttcatg tctcttctct gcctaccttt gttgaactgg tttgccttgg 660
gagacacaca ggacactcga ggctgccttg ctggcctctt tgtcagggag aaacctgcta 720
atctgctata atagtgttgc ttataattct atgattctat ccatcacaaa ggacacagta 780
tagctgcatc ctttaactgc agcttgcagg ccttttctat cgtttacttg ttagcttatc 840
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<211> 900

<212> DNA

<213> Oryza sativa

<220>

<221> variation

<222> (247)

<223> /cultivar="mth, yki, krr, tgr, ghm, mnk, yma, hez,
ksh, tkh, akk, ash, ank, mtb, hnh, ymt, hit, mmm,
fom, don, knh, or ssk"
/note=" "a" replaced with "t" "

<220>

<221> variation

<222> (259)

<223> /cultivar="mth, yki, krr, tgr, ghm, mnk, yma, hez,
ksh, tkh, akk, ash, ank, mtb, hnh, ymt, hit, mmm,
fom, don, knh, or ssk"
/note=" "t" replaced with "c" "

<220>

<221> variation

<222> (307)

<223> /cultivar="mth, yki, krr, tgr, ghm, mnk, yma, hez,
ksh, tkh, akk, ash, ank, mtb, hnh, ymt, hit, mmm,
fom, don, knh, or ssk"
/note=" "g" replaced with "a" "

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<220>
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<222> (358)..(359)
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      fom, don, knh, or ssk"
      /note=" "ta" replaced with "tgta" "

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<222> (396)
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      fom, don, knh, or ssk"
      /note=" "a" replaced with "g" "

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<220>
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<222> (444)
<223> /cultivar="mth, yki, krr, tgr, ghm, mnk, yma, hez,
      ksh, tkh, akk, ash, ank, mtb, hnh, ymt, hit, mmm,
      fom, don, knh, or ssk"
      /note=" "t" replaced with "c" "

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aaaagaacaa gacgaaacat aggtaggatt gcaggatgct caagtggaga cttgtagtgt 180
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gacaggttga tgtgatggaa aaagtttgaa gtttgaattc aaagtttgga tctaaacaca 420
gccccaatgt ttaaagagaa ctttaacgat taaatttggc cacgaccggg aagccgataa 480
acaaaagatg agaataaagt actgtatata caacttccag cctcatcttt tcacttatgc 540
ttatgtttat caactaaaat ttaaattttc aaccttaaatt ttagagttga ttttaggggt 600
tttttttatcg aagtttatct tttagccttt acttttagat cgtaggaaca cgtatatgaa 660
aaaattatct ttcatttgca attataccgt ttgtcttatt ccctatataa gcgaaacgag 720
ggaccttccc tgtcttgctt gtgatcatca gtcactctat ctatccgctg gatgtgaagt 780
tacgacagaa atgatccatc gttcaacttg aattacactt gtactactag cgggtgtacg 840
tcgcatgtca gcgtaacgaa acgatgacat cgccatcaca gtaggagtat tggtactaat 900

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<210> 9
<211> 900
<212> DNA
<213> Oryza sativa

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<220>
<221> variation
<222> (475)
<223> /cultivar="yki, yma, or ssk"
      /note=" "t" replaced with "g" "

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<400> 9
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tgaggcacgt caaatgtttt cataaagtggt gaagtgaagt taactcaact gggtatgttt 120
ttttatggaa tcagtctacc taagttgaag tcctagactt acgccgatgc ttgtatctat 180
tgttaatttt tttttcgtgc tagacgccta tcatgacttc gttaatctca agatatgctc 240

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gcacagtctt tcggagggtgc tcatatgagt aagatgtgcg tgtgtacggt catatgagtg 300
agtatacgtg tgctacgaga gtctgcgtat acagtgtgct tctacaaaaa aatgtttcag 360
agtaaatctc acaaaaactgc aggtactttg atcaaattat tataaaacta cagatttaaat 420
gtgatgtatt acaaaaactac atattttaacc atgaaattat tacagaacta cagatttaag 480
attaagtatc acaaaaactac aaattttaata ataaaattat cacaaagata taggttttg 540
ggtttaaatt cttagcacta atatgttatg attgagttat aaatatctaa gttttgtaat 600
taaattgatg ctaaaccatat agttccacga taattttgtt actaaatctg tagttttata 660
atattctacc ttaaattctat aatttttatga gaaattcagt gttaaatctg tagttttgta 720
atatattatc ttaaattatat agttttgtga aattttaatca atgtttcaca ggagacgtgg 780
catatatgta tactccacag agcgtgtaat taaacgtaat taaaatatga ccaacatgaa 840
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<210> 10
<211> 1020
<212> DNA
<213> Oryza sativa

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<220>
<221> variation
<222> (209)
<223> /cultivar="krr"
      /note=" "g" replaced with "t" "

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<220>
<221> variation
<222> (323)
<223> /cultivar="krr"
      /note=" "g" replaced with "a" "

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<220>
<221> variation
<222> (758)
<223> /cultivar="krr"
      /note=" "c" replaced with "t" "

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<400> 10
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gaccttgctg cccttgaaag cttagttagt tcattgggtat caaaaggaga aatttcatcc 120
aacacggtgc actcttggtt cccttcaaag tttgctcata gcaacctttc aaatgctatt 180
ttttacagtt tagttacagt aatgctaagt actcccccca ttccaaaata tagggcacaa 240
cgattttttc ccctaattgtt gcataatacg aggttcgcat gcatgcgtgc atgctattga 300
ctagcacctc cccctcctct aagttctatt tttaaagcct ctacctcaa gatctctgat 360
ctctaattccc attgggtgca tgcattttat ttattgggat gatccaaatt agaaggtgat 420
aataattttt tcttggtttt tgcgtaagag atagttgctc attatatattt ggaatgtagg 480
ggagtactca tttattctag cacaccaatc tcctgtgcac caaaagtgat tctgcacata 540
gattgagaat gcaaggtagt actaacttgc aattaagtga gtgcattaat tgctgaatat 600
gcataaatta agaacttaag atgcatgcaa agaataattgc tcccagtttc tccactttct 660
gatgtgaact tcccttatct agatcctaca gtgggaactt ttttctgttc atcttgaagt 720
atcttttggt agctgctcat caaaataatt tatattgcct ataacataac ttataccatt 780
ttgtcgaatg ttatttatct aacttcagtg acacctatta tcttttggtg gggaagttca 840
cacttgtaa atcccattgt cttttgcaga taacagccct gtgggattat ttttgctttc 900
acatcaatgg tgtgaaacca gtgcaaagcc gtggagcttt atcgattctt tgcattggcag 960
caaagtcac tccagcatt ttgggtactc atttgcaaga tattattgat attggggttg 1020

```

```

<210> 11
<211> 900

```


<212> DNA
 <213> Oryza sativa

<220>
 <221> variation
 <222> (612)..(613)
 <223> /cultivar="krr, tgr, yma, ksh, tkh, akk, ash, mtb,
 ymt, don, or knh"
 /note=" "ca" replaced with "ag" "

<400> 11
 cttaatccct taatcttcat gtttagaaga ttcgaacggg ggatccagtc ttcaacttgg 60
 cacgcacacg tctcaatctg cctctccatt aatagccaaa caagctgtgt ggcttttctc 120
 ttgcaacttg cagctgtgct gatgttgctg cattctgggtg aactaggcta aaaggcattt 180
 tgtgggtcagg ccctgttttag ttttacgggtg aaaagttttg gcgtgtcaca tcggatatac 240
 ggacacacat ttaaataatta aatatagtct aataacaaaa taaattacat attccgtctg 300
 taaattgcca gacgaattta ttaagcctaa ttaatacttt tatcaaatca tggcgcaatt 360
 aggcctaaaa gattcgtctt acaattttaca cgcaatctgt gtaattagtt tttttattta 420
 tattaataac taaatacatg tgtccaaata ttcgatgtga catgatgaaa agtttttgcg 480
 tgaaaactaa acaggacctc atccacattg ccatggatac atatcattca tgccatggct 540
 agctacctct tgataatagt agaattgtca cgccccgaac tagtcccgac cggaactagc 600
 ccgtgacgct ccaattttaac ctgttaatcg ataccagtc caggaaatag tgctgggtatg 660
 acagggagac agaatatcac agcaacagag gtctctttat tatagagtag aggtacagtc 720
 atgttgggct gcggacagat cccgagctca caactgcatt acagaaggga aacggaagcc 780
 aggacttggg ccaaacaaca caggcgcgac ttgggaacta ggccgaaacc ctaaaactca 840
 tcatagccgg cttgctcctg gaagaactcc tcatcagcag gatccgcttc atcttcttca 900

<210> 12
 <211> 960
 <212> DNA
 <213> Oryza sativa

<220>
 <221> variation
 <222> (765)
 <223> /cultivar="ghm, ksh, ymt, hit, mmm, fom, don, or
 knh"
 /note=" "g" replaced with "t" "

<400> 12
 acggaaaatg atgtaatctt ggaccactct ctgtgacctg tgttatgact tatgactgtg 60
 ctgcaaaggg gagtatgaat tattgttctc aaaactagag atcactcatg ctccaggaag 120
 ccttgaattt gtcttgattt atactgaaag taacctggat tcataaaatt cttgtgttcg 180
 aagcgaatgg ttgaggaata ttatcgtttc attgagagag agatttcac tcagctagaa 240
 aagttaatac ataaaaaaat gttgctagat acctcattga agacagttta acaccaatgg 300
 aaaaaaaatg ttgcaacata tacctcattt tatttcaaca ttgcagtatt aaaagaaatc 360
 ttttatatat gtccttttta aaaaagcatc aagatgtaca agtttttagg ggtttaactt 420
 ggtcaggaag aggatgtgca tcattgtcag gaagacaacg gtgtgaaacc tgtcatgaat 480
 ggtagcctcc cgagacttga gctagaggac ctagtaacac cgaggcatca actagccagg 540
 gatgcaagta ggcaatcaat cgaccatctc tatgagagca cgcgtgctaa tttagttaa 600
 cgagtttcag atactaccta tgtcctaaaa taagttaatt tttcatccat cacacatata 660
 ccaatacaaaa catcaaaaga ttagaatacc agtcactaga tgaatagaag tcgggggtact 720
 caaaatcggt catatgcttg acaagagagt cgagatgatc caaagtaaaa caaatacaag 780
 attattcgat tcagattgaa aacattgggt aaaagatagt tcaaagcaaa acatcggttaa 840
 taaaagatga tttaaagtga aatttgcctc ttattatgat aatagctcgt ttgatttacg 900
 aggttggcga ctaattaagg cttatttagt tcccaaaata aaaaatttca cgcagtcata 960

<210> 13
 <211> 668
 <212> DNA
 <213> Oryza sativa

<220>
 <221> variation
 <222> (571)
 <223> /cultivar="mth, krr, tgr, ghm, mnk, yma, tkh, akk,
 mtb, hnh, or don"
 /note=" "g" replaced with "t" "

```
<400> 13
gaagcatctt aattccagac aagtcaaatt tcatagcaag ggacgatgtt atgattattt 60
attgaattgt acagtactat tcaacctgac aaacattgtg caatcacatg gaaatggagc 120
gttcattttat caaatttgca cgaattcggc gatctcaacc tcaagaggag caactaccgt 180
attcatcctc aatgttaatt tctccccgaa catattatcc tactaccgta ttcacctca 240
atgttaattt ctccccgaac atattatcct ttcgtgcttg atctaatttt aggcatagct 300
caaaattagt gcaactaatc taaaaactgt gaatggacaa aaatatacag cttcagcttc 360
tcaaaaccac ttccccatt cgaacctgaa caaaacccaa ctctgatggc acagtaaata 420
actaactagg gcaagaacca tcgcgcgaca cgggcgcggg ctagatcgat cgatcggtcg 480
atcaagcccc tcccccaaga gggaaacacg accagcgaca gcgatccatc caacgccgtc 540
gcatcattca cagctatagc ctagcttgga ggaatcaaac catggatttt ggccttgacg 600
ttgtcgatgt gtcgctgctc tccacctcga gaaacntggc cccgtcaggt cttaaatac 660
ggtgtctt 668
```

<210> 14
 <211> 900
 <212> DNA
 <213> Oryza sativa

<220>
 <221> variation
 <222> (660)
 <223> /cultivar="hts, mth, tgr, yma, akk, or ank"
 /note=" "a" replaced with "g" "

```
<400> 14
ttataccaca ggtgctgaca ttaatatgct tttacttcag tttgtgtttt gttctctgtt 60
taatcctgca tatgcctgtt aaatttatta caaagactat attaaactag ttttacctgg 120
cgaaaatatt aaactagctt tgatagttct tgttgcaaca acagaaccgt atttgtttta 180
tttcaaatat tatgttccat tagcggaaag agcttggttg ttttgttacc tctttttttt 240
ggcaaataaa gaatgctata tacaagctag attgcaatcg tatatcagga aattgactga 300
tcatgtatgt cgacatgtcg tcttttatgg gagatgaagt tttaacttcc cccataactc 360
tgtttaggct aaatgtagtt ttgcagaaat tttctgccta aatctatttt gtactttgtt 420
gatctaacat tccttacact tagtttctcc atttattgat tgattatttt tctctgtttg 480
ttgaggcctt agcatgtttt gcttctctct tttgctggca ggtgctgcgt gaggttacca 540
gtgatactat tggagcttgt atatgatgtg tcctttggga ccattcttct gcatagctgt 600
gcagaagctg ctactagtgt gttggagaac ctgttggaag acagcttctg cttgtttgta 660
taataagatc agcttctagt tagtattact tataagttgc tgcagaattt tgtcgtttgg 720
cagcaccgca gaatttttta ctgtgtagaa gctgtagaac atctatatat cacttttcaa 780
tttgaagaat tgtaaagaga ggcaatggcc gcattctaag caggtgctct atggaaaaatc 840
cctagttgcg catgtcatat agtttagccat actagtatat agtagtatgt tggtaataaa 900
```

<210> 15
 <211> 490

<212> DNA
 <213> Oryza sativa

<220>

<221> variation

<222> (223)

<223> /cultivar="ksh, hts, mth, yki, krr, tgr, ghm, mnk,
 yma, hez, tkh, akk, ash, ank, mtb, hnh, ymt, hit,
 mmm, fom, don, knh, or ssk"
 /note=" "g" replaced with "a" "

<400> 15

```
ccttgtggtc acacttgccg cggttgccgag ggcggcccgcc ccagaagaaa ccaggccggg 60
cttggcccgcc cgcgggtcag catcctcacc gacgactcac ctgcacttct acttccacga 120
caagggtgagc aagccatcac cgacggcagc gcgggtgggtg gaccgggtgg acccgatcac 180
gcggtccttc tttgggatga tcaacgtcat ggacgatccg ctgacggagg ggcccagacc 240
cgagtcctaac cccatggggc gggcccaggc gctgtacatg ggctcagacc aggccaaagt 300
gggcttcctc caggcaatga acctgggtgt caccgacggc acctacaacg gcagcggtgg 360
caccgtgctc ggccgcaact gccccttcga cgacgtccgg gagatgccgg tgatcgccgg 420
caccggcgcc ttccgcttcg cccgcggcta cgcccaggcc aggacgcaca ccctggacct 480
caagaccgga
```

<210> 16

<211> 460

<212> DNA

<213> Oryza sativa

<220>

<221> variation

<222> (55)

<223> /cultivar="krr, ghm, ksh, tkh, ymt, hit, mmm, fom,
 don, or knh"
 /note=" "t" replaced with "g" "

<220>

<221> variation

<222> (59)

<223> /cultivar="krr, ghm, ksh, tkh, ymt, hit, mmm, fom,
 don, or knh"
 /note=" "g" replaced with "a" "

<220>

<221> variation

<222> (133)..(134)

<223> /cultivar="krr, ghm, ksh, tkh, ymt, hit, mmm, fom,
 don, or knh"
 /note=" "tc" replaced with "ttc" "

<220>

<221> variation

<222> (162)..(163)

<223> /cultivar="krr, ghm, ksh, tkh, ymt, hit, mmm, fom,
 don, or knh"
 /note=" "tc" replaced with "tgtc" "

<220>

<221> variation

<222> (247)
 <223> /cultivar="krr, ghm, ksh, tkh, ymt, hit, mmm, fom,
 don, or knh"
 /note=" "g" replaced with "a" "

<220>
 <221> variation
 <222> (319)
 <223> /cultivar="krr, ghm, ksh, tkh, ymt, hit, mmm, fom,
 don, or knh"
 /note=" "g" replaced with "c" "

<400> 16
 tggcatcttt gcatgttgag ctttaagatg tagtgggctt taactttata gaaatatagg 60
 attaatcct atagaatgac atgatgcagg atgtcattaa taatcctcca agctgttccc 120
 ttttaacttt tttccctgtt acttgaaact tgactaagga ttctcttcgt attaatgtgg 180
 attgtgtcac tgaccatatg gttgtatctt tctttcagcg cttcgctggg acttggaatg 240
 tttgttgttt ttcagtgcct tcatggccat ggaactcaga atgtctccaa cgtgcaaatt 300
 cttggttgtg atctagaaga tgggtatttg tttgaaacaa tggaagcact tgatgttccc 360
 ttagcatata cacttgtgag cttgtgttga tagaattgta aagcttacat atgttttagt 420
 tctactatta ttttgaagag ggaaatgtgc agctggatgc 460

<210> 17
 <211> 314
 <212> DNA
 <213> Oryza sativa

<220>
 <221> variation
 <222> (163)
 <223> /cultivar="ksh, tgr, mnk, yma, hez, akk, hnh, ymt,
 hit, mmm, fom, don, or knh"
 /note=" "g" replaced with "a" "

<400> 17
 ttgaatcggt tgcaggagag ggcgggtggcg atggcggagt tggttgggccc gcgggtgtac 60
 agctgtctgt gctgccattg ccggaaccac gtctgcactc cagcagaca tcatctccaa 120
 ggccctttcag gtgaagaaga acttgagttc ttggggattt gtggggctga ttgctcaagt 180
 gacaaatact aatcttaggt catgtactga caatctagat tgaattggat ttaatcacta 240
 ggcttctgat gtgcgtagtg ccggattgat ttggtatatt atgctaaaga aggtaaaaac 300
 atggcatagc cgca 314

<210> 18
 <211> 644
 <212> DNA
 <213> Oryza sativa

<220>
 <221> variation
 <222> (421)
 <223> /cultivar="ksh, krr, tgr, mnk, yma, hez, tkh, akk,
 ash, ank, mtb, hnh, hit, mmm, fom, or ssk"
 /note=" "a" replaced with "c" "

<400> 18
 cgaccccatg aagcttttgc ctctctcacg cttcttgcca cagccaaagt atgatgctag 60

```

cctaatttat agcttactgt ttccgggtgtt aaattttgctt gtagattcgg gttcacgtgc 120
aaacttgaat tgataacacc atgtcatgcc aactgctatc tttctcccaa caagtatttc 180
taaaactcaa ttgaacattg ataattctca agaaagctaa taagtgttac aaatactagc 240
agctctaaga aatatattca aatttctaag tatgcctatt aagcccaaag attccactat 300
tgtagtctgc attgtttgga attaattgat gaatctactg caggttctga ctacagaaat 360
agtgcagctt ctctgtccta tatgactata cgaaatgtta caagcaaagc atgaggaatg 420
aatataaaaa actaaacaaa tagtgaaata tctatctaata taacaccaag gagttgcgta 480
actctgtttg ctttctctgc agggggccaaa gtcaaggagg gggcagagg ggtggccgtg 540
gtggtggaag aggcgggttc cgtggccgtg gtggtggtgg cttccgtgga agaggtgcgc 600
caaggggccg tgggtggacct cctaggggtg gaggtcgtgg attt 644

```

```

<210> 19
<211> 549
<212> DNA
<213> Oryza sativa

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<220>
<221> misc_feature
<222> (3)
<223> n= a, t, g, or c

```

```

<220>
<221> variation
<222> (172)
<223> /cultivar="hts, mth, yki, krr, tgr, ghm, mnk, yma,
ksh, akk, ank, mtb, hnh, ymt, hit, mmm, don, knh,
or ssk"
/note=" "t" replaced with "g" "

```

```

<220>
<221> variation
<222> (178)
<223> /cultivar="hts, mth, yki, krr, tgr, ghm, mnk, yma,
ksh, akk, ank, mtb, hnh, ymt, hit, mmm, don, knh,
or ssk"
/note=" "g" deleted"

```

```

<220>
<221> variation
<222> (285)..(286)
<223> /cultivar="hts, mth, yki, krr, tgr, ghm, mnk, yma,
ksh, akk, ank, mtb, hnh, ymt, hit, mmm, don, knh,
or ssk"
/note=" "ct" replaced with "c" "

```

```

<220>
<221> variation
<222> (298)
<223> /cultivar="hts, mth, yki, krr, tgr, ghm, mnk, yma,
ksh, akk, ank, mtb, hnh, ymt, hit, mmm, don, knh,
or ssk"
/note=" "t" replaced with "c" "

```

```

<400> 19
atntccccct atcggatcgg tcatggagat gctactgcc aaccgatga actcctctcc 60
cagtcgcggc gaatcaagcg accccgatga aaaatcgagc tccccggcga cggatcgacc 120
tgccacgatg gcggattgag cggctcacct ctctcaccg gatccagcca gtgtcgtggc 180

```

```

catcttcgag  ctcgagctgc  atgcctccgt  gcgacagcgg  cggatggatcg  gacaaggggtg  240
acgcggatct  gtcggcctcc  accccagatg  agcgattttc  cactctaccg  gattgagtgt  300
atatttggct  ttgtctttta  tctgactgga  tttctcttct  ttttcttctt  aattaggatt  360
caattgttct  taccataaag  atgtttttag  gcccgatttg  gttagggttt  gggggaattt  420
gggttaaact  ctatcggttt  tctataggag  agacggggat  agattcggtc  ggtttcttta  480
ggagggacgg  acagaggaag  tgcggagggc  ggaggggatc  gtgaacaaaag  gggacgctcc  540
acccaaata

```

```

<210> 20
<211> 900
<212> DNA
<213> Oryza sativa

```

```

<220>
<221> variation
<222> (141)
<223> /cultivar="yki, krr, or ghm"
      /note=" "a" replaced with "g" "

```

```

<400> 20
gctagcttgg  ccagcagtac  gtgagtctga  cgatgcatgc  atggatgacc  ctgctaatta  60
attatacttc  ctccatactc  atagaaaaag  tccttttagaa  caatatttaa  atcaaacatt  120
taaaatataa  atcatgaata  actcttaaat  tgttgagttt  aaaaatgtaa  aaattatatg  180
aatagatttg  tcttgaaaaa  tactttcata  aaagtgcaca  tatattactt  ttcaataaat  240
atttttatag  aaaaaagaag  tcaaaattgt  gttttgtaaa  ccgtgtcgct  gtccaaaacg  300
acttccttta  cgagtatcaa  ccaatcgaat  tgccctccct  ctcaaaaagtc  aacctcctcc  360
aaattaaagg  catgcaagac  gccaaaggcg  gcagatctgt  attcttcccg  tggacgggtg  420
gcgcatgcat  gcgtacaaac  tttttttttt  gttggatttg  gtacgagcgt  agctgataaa  480
gatagctagc  tcatcagctt  ccttcacaga  atcacaagaa  ctagtggcat  atgaatccta  540
catacttcta  tccaattcga  tcgatcattc  accttgtgcc  tatgcaatag  gcaatatctg  600
agctagcgaa  cacagtaact  ctccctccc  ccctcctcac  gcgccgatca  taaattaata  660
ctccctccgt  aatgtatgac  gccgttaact  ttttaagatg  cgtttgatcg  ttcattctat  720
ataaaaaaat  atataatttt  tattatttat  ttaaagtatg  atttaactat  tatatttgta  780
tttgacaaa  aatttgaata  agataaatag  tcaaacatcg  atcaaaaagt  caacggcatc  840
atacatataa  aaataaaggt  agtattcaat  attttgtaaa  atattgatcg  gacttgtaaa  900

```

```

<210> 21
<211> 960
<212> DNA
<213> Oryza sativa

```

```

<220>
<221> variation
<222> (480)
<223> /cultivar="mth, ghm, hez, or don"
      /note=" "t" replaced with "c" "

```

```

<400> 21
aacagtcctt  gtatgcactg  aacgtactgg  tgcggcttgc  ttgggcaatc  gtcaacgggtc  60
aagacgtact  aaagagtgga  ttaacaaaat  gaatgtttta  ctaactgtat  agtgaacaca  120
agcgggcacc  tatagtcgta  acgaccggcg  ccaaattgcc  cagttgcgta  cgcgagaatc  180
gatcgcgcga  gccgatccga  tcagctagaa  tattcgaacg  gaataaagag  aacatctcca  240
tgtcctgata  cgtgtgtaca  cacacgtacg  tacgtgtata  cgtatacgcg  cgtgtgtatg  300
tgtacatatg  tatatatata  tatatatata  catatacata  tgtatgtatg  tatatatata  360
tatacatatg  tatgtatgta  tgtatatata  tatacatatg  tatgtatgta  tgtatatata  420
tatatacata  tgtatgtgac  ggagctcggt  gtcctcacc  gggagaccgc  gcaggcccct  480

```

```

ctttgccggt tcggccgggg gcttaggggtg agatctcaag ctctctctct ctgtgtgtgg 540
aaagatcgtc tgctagcaag aaacgcgaga caccggcgat gtatacaggt tcgggccgct 600
gagaagcgta ataccctact cctgtgtttt ggtggatctg tgtatgaatg agctacaaag 660
tgtgagccca cctctcccc gttctaagct ctgaatctgg caagaatcaa ccaaccctt 720
ctctatgggc aaggtcctcc ttttatactt caaggggata ccacatgcac ccttccctt 780
ccaaactgga cttttcttct ctttatgaac ggagattggt atggttgccg tccgaatgac 840
acttcgatgg gacagcccac acctacctcc actcccggcg gagacgggag caacgtggga 900
tcgtggctgc ccgttgctga cgcgaccagt gtcagaccgg tcattcttgt ccaccacgcg 960

```

<210> 22

<211> 900

<212> DNA

<213> Oryza sativa

<220>

<221> variation

<222> (175)

<223> /cultivar="krr, tgr, ghm, mnk, yma, ksh, akk, ymt,
hit, mmm, fom, don, or knh"
/note=" "g" replaced with "a" "

<220>

<221> variation

<222> (197)

<223> /cultivar="krr, tgr, ghm, mnk, yma, ksh, akk, ymt,
hit, mmm, fom, don, or knh"
/note=" "g" replaced with "a" "

<220>

<221> variation

<222> (231)

<223> /cultivar="krr, tgr, ghm, mnk, yma, ksh, akk, ymt,
hit, mmm, fom, don, or knh"
/note=" "g" replaced with "a" "

<220>

<221> variation

<222> (272)

<223> /cultivar="krr, tgr, ghm, mnk, yma, ksh, akk, ymt,
hit, mmm, fom, don, or knh"
/note=" "t" deleted"

<220>

<221> variation

<222> (285)

<223> /cultivar="krr, tgr, ghm, mnk, yma, ksh, akk, ymt,
hit, mmm, fom, don, or knh"
/note=" "g" replaced with "t" "

<220>

<221> variation

<222> (346)

<223> /cultivar="krr, tgr, ghm, mnk, yma, ksh, akk, ymt,
hit, mmm, fom, don, or knh"
/note=" "g" replaced with "a" "

<220>
<221> variation
<222> (381)
<223> /cultivar="krr, tgr, ghm, mnk, yma, ksh, akk, ymt,
hit, mmm, fom, don, or knh"
/note=" "c" replaced with "t" "

<220>
<221> variation
<222> (384)
<223> /cultivar="krr, tgr, ghm, mnk, yma, ksh, akk, ymt,
hit, mmm, fom, don, or knh"
/note=" "c" replaced with "t" "

<220>
<221> variation
<222> (481)
<223> /cultivar="krr, tgr, ghm, mnk, yma, ksh, akk, ymt,
hit, mmm, fom, don, or knh"
/note=" "t" replaced with "c" "

<220>
<221> variation
<222> (500)
<223> /cultivar="krr, tgr, ghm, mnk, yma, ksh, akk, ymt,
hit, mmm, fom, don, or knh"
/note=" "c" replaced with "t" "

<220>
<221> variation
<222> (585)
<223> /cultivar="krr, tgr, ghm, mnk, yma, ksh, akk, ymt,
hit, mmm, fom, don, or knh"
/note=" "g" replaced with "c" "

<220>
<221> variation
<222> (613)
<223> /cultivar="krr, tgr, ghm, mnk, yma, ksh, akk, ymt,
hit, mmm, fom, don, or knh"
/note=" "g" replaced with "c" "

<220>
<221> variation
<222> (676)
<223> /cultivar="krr, tgr, ghm, mnk, yma, ksh, akk, ymt,
hit, mmm, fom, don, or knh"
/note=" "c" replaced with "t" "

<220>
<221> variation
<222> (688)..(689)
<223> /cultivar="krr, tgr, ghm, mnk, yma, ksh, akk, ymt,
hit, mmm, fom, don, or knh"
/note=" "tg" replaced with "tgg" "

<220>
<221> variation

<222> (722)
 <223> /cultivar="krr, tgr, ghm, mnk, yma, ksh, akk, ymt,
 hit, mmm, fom, don, or knh"
 /note=" "a" replaced with "g" "

<220>
 <221> variation
 <222> (749)
 <223> /cultivar="krr, tgr, ghm, mnk, yma, ksh, akk, ymt,
 hit, mmm, fom, don, or knh"
 /note=" "a" replaced with "g" "

<220>
 <221> variation
 <222> (754)
 <223> /cultivar="krr, tgr, ghm, mnk, yma, ksh, akk, ymt,
 hit, mmm, fom, don, or knh"
 /note=" "t" replaced with "c" "

<400> 22
 gatgacttct actccctccg tcccctaata taagggattt tgacattttg ctttccttgt 60
 ttgaccactc gttttatatt ttttgtaaat ataaaaaata aaaagttgtg ctttaaagtac 120
 tctggataat aaagtaagtc acaaataaaa taaataataa tttcaaaatt ttctgaataa 180
 gacgaatggt caaacagtgc aagtaaaatg tcaaaatccc ttatattaag ggacggagggg 240
 agtatgtatt acctccaaaa tatagtaact ttaagacgag attagatacc acgaaaatat 300
 attcttaact ctatgtatta ggttggtata tttttttaac agagagtagt atcaattcaa 360
 agtggattaa ttactctttc cgtcttaaaag tataataact tctaagattc aaaatttatc 420
 cccaaacaaa caactttttc cctacatttc attctcaatc gactacaatc ttccactcca 480
 tatattttat tttctctacc aatcacattc tttttcattt aacttcacac tctctcttaa 540
 aactttttata ttttgatacg gaggtagtagt aaaattttctg atcggttgat gtgcagtggc 600
 aaaagagctc atgagacatt ccactgcaca gacaatctgg gccttcttac atggactggc 660
 acaattttaac atattccaag ctgtgcctgg tggatgtagg gatgcaagta ggtcaaccgc 720
 taaatccact tatatgcaaa ataagtagat atttacgggt ttaccttact aatttggttt 780
 ataaatgggt ttatgggtcg acccatttgc atctctaggt gcgataagtc aagccacgac 840
 atgaaaatgg gttaccactt atttgacgta taagtagatt ggcgggtccg ttttaattgca 900

<210> 23
 <211> 960
 <212> DNA
 <213> Oryza sativa

<220>
 <221> variation
 <222> (131)
 <223> /cultivar="mth, tgr, mnk, tkh, ash, mtb, hnh, hit,
 mmm, don, or ssk"
 /note=" "g" replaced with "c" "

<400> 23
 aatctgatat ttcttctggt tcaaatgata attgacacaa gtgtgccatt ttgcaaaaac 60
 cataccttta atttcatttt atggtacgta tgccaagtaa aacttgtgaa ctacactatt 120
 tagttgctta gtcataaaga actcaagtag tctttttttg aggaaaagcc ttagaagagg 180
 acagggagag cctgttttca ttaaagaaga agagacttgg ccagttttt gaggggaaac 240
 caggcccaaa aacctcagaa ctcaagtagt ctatttatatg aaacttaata aactgcgtca 300
 aagctgtggt cttcttttct gttgttgac atcgcaagtt taagcctgaa atatgttatt 360
 tttccatggt gcccatctt caataatgga agctttatta aaactcagtc aaatacaaca 420

```

agatgataca ttctaattga gcccactccc gacctctgca agaaatgcac acagccacaa 480
aacatgacct atctagaccc ccattgcctt cttcatgctc ttaatttctg taacatactg 540
ttcacctgtc tggctatctg ggatttttca aggtgtacac ctacgggcat tttgatggaa 600
gggtgaagggg aattacctca actgaacaga ggatgctggt tatacagaac tactaacatc 660
gtaagaacat tctatgattc tgatgcagac atacagtaca gttttaatct aatcaaggag 720
gacgccatat gtgggacacc gcagcgaagt gtaaggagtc ctagaacatc taccttagga 780
gttaagaaga atctatgaga ttgtatgtat aaacatcagg tttctgcaaa tactcttadc 840
taaattccta atgcctgtat tgcaaataca tactttcagt tcgcattaaa gtgtgatagt 900
atgtatgtca cctttgttct caggtagctt ggcaaaatgg caggtcagac ggatcaaggct 960

```

<210> 24

<211> 723

<212> DNA

<213> Oryza sativa

<220>

<221> variation

<222> (236)

<223> /cultivar="krr, ghm, ksh, tkh, ymt, hit, mmm, fom,
don, or knh"
/note=" "a" replaced with "g" "

<220>

<221> variation

<222> (244)

<223> /cultivar="krr, ghm, ksh, tkh, ymt, hit, mmm, fom,
don, or knh"
/note=" "t" replaced with "g" "

<220>

<221> variation

<222> (318)

<223> /cultivar="krr, ghm, ksh, tkh, ymt, hit, mmm, fom,
don, or knh"
/note=" "t" replaced with "g" "

<220>

<221> variation

<222> (322)

<223> /cultivar="krr, ghm, ksh, tkh, ymt, hit, mmm, fom,
don, or knh"
/note=" "g" replaced with "a" "

<220>

<221> variation

<222> (396)..(397)

<223> /cultivar="krr, ghm, ksh, tkh, ymt, hit, mmm, fom,
don, or knh"
/note=" "tc" replaced with "ttc" "

<220>

<221> variation

<222> (425)..(426)

<223> /cultivar="krr, ghm, ksh, tkh, ymt, hit, mmm, fom,
don, or knh"
/note=" "tc" replaced with "tgtc" "

```

<220>
<221> variation
<222> (510)
<223> /cultivar="krr, ghm, ksh, tkh, ymt, hit, mmm, fom,
don, or knh"
      /note=" "g" repalaced with "a" "

```

```

<220>
<221> variation
<222> (582)
<223> /cultivar="krr, ghm, ksh, tkh, ymt, hit, mmm, fom,
don, or knh"
      /note=" "g" replaced with "c" "

```

```

<400> 24
gagatatatt gcaatatttt gagaattatg tgaaatgatg atttaacgtg cttggatttt 60
tgtaagctct aaaatttttaa gtgaggataa actatataag catataggat attataaaaa 120
gtgaaggaga ggtatattga aatattatgt ggattatgtg ggatgataat ttaattaaca 180
tgcttgcat ttaaagtctt aaaacttaat aaattagcat gcttgcatga gatttaagat 240
gtattaaaatg ttagtggatg atgtggcatc tttgcatgtt gagctttaag atgtagtggg 300
ctttaacttt atagaaatat aggattaatt cctatagaat gtcatgatgc aggatgtcat 360
taataatcct ccaagctgtt cccttttaac tttttccct gttacttgaa acttgactaa 420
ggattctctt cgtattaatg tggatttgtg cactgaccat atggttgtat ctttctttca 480
gcgcttcgct gggacttgga atgtttgttg tttttcagt ctttcatggc catggaactc 540
agaatgtctc caacgtgcaa attcttggt gtgatctaga agatggttat ttgtttgaaa 600
caatggaagc acttgatgtt cccttagcat atacacttgt gagcttggt tgatagaatt 660
gtaaagctta catatgtttt agttctacta ttattttgaa gagggaaatg tgcagctgga 720
tgc                                                                    723

```

```

<210> 25
<211> 799
<212> DNA
<213> Oryza sativa

```

```

<220>
<221> variation
<222> (134)
<223> /cultivar="krr"
      /note=" "c" replaced with "t" "

```

```

<220>
<221> variation
<222> (153)..(154)
<223> /cultivar="krr"
      /note=" "gg" replaced with "at" "

```

```

<220>
<221> variation
<222> (181)
<223> /cultivar="krr"
      /note=" "t" replaced with "c" "

```

```

<220>
<221> variation
<222> (197)
<223> /cultivar="krr"
      /note=" "a" replaced with "g" "

```

```

<220>
<221> variation
<222> (216)
<223> /cultivar="krr"
      /note=" "c" replaced with "t" "

<220>
<221> variation
<222> (248)
<223> /cultivar="krr"
      /note=" "c" replaced with "t" "

<220>
<221> variation
<222> (269)
<223> /cultivar="krr"
      /note=" "g" replaced with "a" "

<220>
<221> variation
<222> (271)
<223> /cultivar="krr"
      /note=" "a" replaced with "g" "

<220>
<221> variation
<222> (310)..(311)
<223> /cultivar="krr"
      /note=" "gc" replaced with "at" "

<220>
<221> variation
<222> (322)..(323)
<223> /cultivar="krr"
      /note=" "cc" replaced with "ctctcc" "

<220>
<221> variation
<222> (402)
<223> /cultivar="krr"
      /note=" "a" replaced with "c" "

<220>
<221> variation
<222> (445)..(446)
<223> /cultivar="krr"
      /note=" "gt" replaced with "ggt" "

<220>
<221> variation
<222> (559)
<223> /cultivar="krr"
      /note=" "a" replaced with "c" "

<400> 25
aaattcggaa tggctagctg ttgagagtca ttaactccat ccatgtgatg ggtaacacct 60
actctactct acagtataat actagtgtgg tactgatacg gtgattatat gctgtactat 120
cattatacta ctgcggccct gtttggttct atggactaat gtttagctct cacatttta 180

```

```

tttttaaatta gccctcaaga atccaaacag gtgggctaata tttgagctaa tgtgaattag 240
ccccctcaa aatattagcc cctccaaggg atgctaataag ggtaatttt gtgtggggat 300
catcaaaaag cagctctctc tcctctcttt ctactctctc caacttttag ccttgaatta 360
gcccatggat ccaaataac caccctaggc taatgttttag catattaatt tatgactaaa 420
cattagctct taaaattagc cctgggtaata cttaccaaca gagcctcggt gtgttacttg 480
tgcacgcgat gcacggacag tttcattctc tgtcttcaaa ggcttgaagc cggcaacata 540
tcgttttcat agacagctat tgtaccacaa cggtagtacc ctacttctcc atttctcact 600
cagcttcgtc tttaacaaca ccgttggtacc atgcttacca ttgcctctc tatgaaaata 660
aaaacatcat ttcgattttc aaaaatatag ctcaactggg ttcaactcaa ctgtctaatt 720
aggcgatgta catatcaaca tcggaacgct tataataact tcttaaactc caaaatatat 780
tggttgaatc atcggaggt

```

<210> 26

<211> 709

<212> DNA

<213> *Oryza sativa*

<220>

<221> variation

<222> (92)

```

<223> /cultivar="mth, krr, ghm, yma, hez, ksh, tkh, akk,
      ank, mtb, ymt, hit, mmm, fom, don, knh, or ssk"
      /note=" "g" replaced with "c" "

```

<400> 26

```

attttcagaa cagtcacat agacatgcc atttactaca agcgaagact ggagagggtta 60
ggattcaaat agttaataat taactttttt tggaatcagt atgctatata tagttaaaact 120
ttaggagaaa gaacattggt gatatgaaga cactattgct ctaaaatatga acaacacaca 180
caataaatct aagttcgggt tactgaacta tcagggtatgg acctatatc aaaactaaca 240
taggaggcca gcacgtgggt atatecccttg atcccagggt gaaccagttc atatttcaac 300
aagaggggaa gttgttccaa tcctgggttc cagaaaccac actaaacatc tttggaaaga 360
agacactcac cactataat agaactgctc acaagttgat ccggagcttc gtatgcaagc 420
tctatggccc tgaaaacgtg aaaaaatcac tcctgccaga actagagaac tccatgaggg 480
aaagcttggc gtcattggata ggaaaaccta gtgtcgaggt gaatgatggc gtgtcaaatg 540
taagttaaca tctgcatttc tacataagta ttcacaattg cacagtgtc ataaaaatcat 600
catgatgttt tactatgatt aatttctatt gtgcagatga tcttcggcct agctgccaaa 660
cattgattgg cctcgacatc accattcagg agattgaaaa agacttcag

```

<210> 27

<211> 900

<212> DNA

<213> *Oryza sativa*

<220>

<221> variation

<222> (743)

```

<223> /cultivar="krr"
      /note=" "a" replaced with "g" "

```

<400> 27

```

cacacatcaa gcacgatcgg aaacgttgta ctgtatctcc cgcataatga ttatggagtt 60
ggcactcgag atcaagatat cagaatagta tatttttctg ttttcaattc ttcctctcca 120
cagagctctt cttagcctcg gcttgtgaga gtaagcgcg cteccagcca actaagaatt 180
tgtcggcctt cgcaatgggt gggtgcaggt ctgctgttct caacttttgg attgacaaag 240
gaagacctaa ttaggacatt agcagggatt cctgtttgca ttgcagagtg tgaatcagct 300
gagactcttc ctccgctccc acatagatgc atatcattgt gctcttacta aagttgattt 360

```

```

gcagacttgt tgcctagaa aactcgtcta ggcaatgctt tagtggtggt acataagcaa 420
tcgaagctcg tcaaataatc aatataacat tggcatactg cagagctgta cgaggctctt 480
gagggtacag atggtgtcca gagcagggtt tgctctaaga aggcatgga gcacatctgc 540
cggatgaaca agtaagggtga cataggatca ccttgacgta gccctctctt acaaccgatc 600
cacctgcccc ggacttcatt gagaaggata gttgactttg aagtctgcta catgttgatc 660
acccaatgga tccaagtatc gggaatcctc ttgccctcat aatatctagc agactttccc 720
atcttatggg ttaggaggaa ttatatggtg tttgacaaat ttctaattaa atcttattgg 780
catatatatt tcagggaat atattggtt tggttctaag cacaactaca aatgtgtgaa 840
aagtacaaga agctaaaaca tactgcatat caaaacttgg agtccacggc cataaatata 900

```

```

<210> 28
<211> 840
<212> DNA
<213> Oryza sativa

```

```

<220>
<221> variation
<222> (164)
<223> /cultivar="mth, krr, tgr, mnk, yma, hez, ksh, akk,
      hnh, hit, mmm, fom, or ssk"
      /note=" "t" replaced with "c" "

```

```

<220>
<221> variation
<222> (225)
<223> /cultivar="mth, krr, tgr, mnk, yma, hez, ksh, akk,
      hnh, hit, mmm, fom, or ssk"
      /note=" "a" replaced with "g" "

```

```

<220>
<221> variation
<222> (254)
<223> /cultivar="mth, krr, tgr, mnk, yma, hez, ksh, akk,
      hnh, hit, mmm, fom, or ssk"
      /note=" "g" replaced with "a" "

```

```

<220>
<221> variation
<222> (261)
<223> /cultivar="mth, krr, tgr, mnk, yma, hez, ksh, akk,
      hnh, hit, mmm, fom, or ssk"
      /note=" "a" replaced with "g" "

```

```

<220>
<221> variation
<222> (268)
<223> /cultivar="mth, krr, tgr, mnk, yma, hez, ksh, akk,
      hnh, hit, mmm, fom, or ssk"
      /note=" "a" replaced with "g" "

```

```

<220>
<221> variation
<222> (296)
<223> /cultivar="mth, krr, tgr, mnk, yma, hez, ksh, akk,
      hnh, hit, mmm, fom, or ssk"
      /note=" " t" replaced with "c" "

```

<220>
 <221> variation
 <222> (326)
 <223> /cultivar="mth, krr, tgr, mnk, yma, hez, ksh, akk,
 hnh, hit, mmm, fom, or ssk"
 /note=" "a" replaced with "g" "

<220>
 <221> variation
 <222> (552)
 <223> /cultivar="mth, krr, tgr, mnk, yma, hez, ksh, akk,
 hnh, hit, mmm, fom, or ssk"
 /note=" "c" replaced with "t" "

<220>
 <221> variation
 <222> (667)
 <223> /cultivar="mth, krr, tgr, mnk, yma, hez, ksh, akk,
 hnh, hit, mmm, fom, or ssk"
 /note=" "c" replaced with "t" "

<220>
 <221> variation
 <222> (728)
 <223> /cultivar="mth, krr, tgr, mnk, yma, hez, ksh, akk,
 hnh, hit, mmm, fom, or ssk"
 /note=" "g" replaced with "a" "

<400> 28
 ttgaataaac catggaaaat tattacacat ataatacatt agcgaccaa ttgtttcgcc 60
 cctaactaga tgatgccccg cgctttgctg cgggatatat gttagatact ggagaaatga 120
 acaaatgatt tggattaaaa tattatgaaa atggtttgag aattagtatg tttagtttg 180
 gaatgaagta aattgtagat ataattacta tatgcttgca tgttaaactt tgtgtgctta 240
 atgggttgat gtggcatgct acatgtaagt tttaggagt ctaataaata ctatgtttat 300
 atgttgagct ttaggtgttt agtggacatt agctttatag aaagaagaga tccctttcct 360
 ttttcagggtg attttctgtc cagtccacct cttttcatct ttttttggtg taataactct 420
 cgtggacgag aatttagagt atttaccatc caattcgtgt gcctcaactt ttttacctc 480
 aatccgtatg cctctataa tactccgtat gacattagga ctgctaacta gtctatttgg 540
 taccactttc tcagtttttg atgtatttct catttcttaa ctcaatttgt atttctttta 600
 tggcattgtg gacaattttg ccctaggcc cactgtaaga tcaaaggaag attgtcgtag 660
 gctctccgga ccttccatta tatttgagag ataaagtga taattcaagt catcaaaca 720
 gcataatgaa acatccgacg cctcgagaga gaaatattgg agacattgct ggacctttag 780
 cctgccagtc aatttcagcc taaaatgtgc tcgtcaaacc actcgaaggc ggcgaccaga 840

<210> 29
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:an artificially
 synthesized primer sequence

<400> 29
 gcaattgccca ctggaagaat

<210> 30
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:an artificially
synthesized primer sequence

<400> 30
taagttgggg aatgcgatgt 20

<210> 31
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:an artificially
synthesized primer sequence

<400> 31
tctgctgcct ctgcacatac 20

<210> 32
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:an artificially
synthesized primer sequence

<400> 32
aaaaacgaca ccacatcagc a 21

<210> 33
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:an artificially
synthesized primer sequence

<400> 33
ggggcgctcc ttcaaaactt 20

<210> 34
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:an artificially synthesized primer sequence

<400> 34

ggtttggcac accacaatgg

20

<210> 35

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:an artificially synthesized primer sequence

<400> 35

tgcaatgtgc cattccatag

20

<210> 36

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:an artificially synthesized primer sequence

<400> 36

tatgacaagg tgggccctaa

20

<210> 37

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:an artificially synthesized primer sequence

<400> 37

cgccacagaa cggacaaaag

20

<210> 38

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:an artificially synthesized primer sequence

<400> 38

gaccaatcct ttgccgaagc

20

<210> 39
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:an artificially
synthesized primer sequence

<400> 39
ccgatggcag cacaaatctt

20

<210> 40
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:an artificially
synthesized primer sequence

<400> 40
tcagtttggc ttgggtgtcc

20

<210> 41
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:an artificially
synthesized primer sequence

<400> 41
ccattggttg gtgtggctgt

20

<210> 42
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:an artificially
synthesized primer sequence

<400> 42
tggtcgcggc tgataagcta

20

<210> 43
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:an artificially synthesized primer sequence

<400> 43
tgcgatggag ggagtattgg 20

<210> 44
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:an artificially synthesized primer sequence

<400> 44
tgcgagcgta caccgctagt 20

<210> 45
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:an artificially synthesized primer sequence

<400> 45
gcttgaggca cgtcaaaatg 20

<210> 46
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:an artificially synthesized primer sequence

<400> 46
ttccgtcgtt catgttggtc 20

<210> 47
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:an artificially synthesized primer sequence

<400> 47
cccacggaaa cagccaaaag 20

<210> 48
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:an artificially
synthesized primer sequence

<400> 48
tgctgccatg caaagaatcg 20

<210> 49
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:an artificially
synthesized primer sequence

<400> 49
attcgaacgg gggatccagt 20

<210> 50
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:an artificially
synthesized primer sequence

<400> 50
agcggatcct gctgatgagg 20

<210> 51
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:an artificially
synthesized primer sequence

<400> 51
gtgctgcaaa ggggagtatg 20

<210> 52
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:an artificially synthesized primer sequence

<400> 52
cgccaacctc gtaaataaaa 20

<210> 53
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
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<400> 53
gaacctgagg accaagtgaag agagt 25

<210> 54
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ctagagagga gagggagaag gagga 25

<210> 55
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ataccacagg tgctgcgtga 20

<210> 56
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<210> 57
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ccttgtggtc acacttgagg 20

<210> 58
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<210> 59
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<210> 60
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<210> 63
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<210> 64
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synthesized primer sequence

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<210> 67
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synthesized primer sequence

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<210> 68
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tgatgccgtt gactttttga 20

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synthesized primer sequence

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<210> 72
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<210> 73
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<210> 74
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tgccaagcta cctgagaaca 20

<210> 75
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synthesized primer sequence

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<210> 76
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synthesized primer sequence

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<210> 77
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synthesized primer sequence

<400> 77
aaattcggaa tggctagctg 20

<210> 78
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synthesized primer sequence

<400> 78
acctccgatg attcaaccaa 20

<210> 79
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caagcgaaga ctggagaggt t 21

<210> 80
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<210> 81
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<400> 81
atcaagcacg atcggaacg 20

<210> 82
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<400> 82
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<210> 83
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<400> 83
gaccaaattg ttctgcccct a 21

<210> 84
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synthesized primer sequence

<400> 84
gccttcgagt ggtttgacga 20

<210> 85
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synthesized primer sequence

<400> 85
aggtcgacac ttcggccggt 20

<210> 86
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synthesized primer sequence

<400> 86
gaacagctgt aataagactg a 21

<210> 87
<211> 20
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<220>
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synthesized primer sequence

<400> 87
gatgcctgca aagtcgac 20

<210> 88
<211> 20

<212> DNA
<213> Artificial Sequence

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synthesized primer sequence

<400> 88

cgcaaaccat caacttaca

20

<210> 89

<211> 22

<212> DNA

<213> Artificial Sequence

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synthesized primer sequence

<400> 89

cgattggcag ataaagttgg at

22

<210> 90

<211> 20

<212> DNA

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<223> Description of Artificial Sequence:an artificially
synthesized primer sequence

<400> 90

tggctagaag tagatgctgc

20

<210> 91

<211> 20

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:an artificially
synthesized primer sequence

<400> 91

aaacaggtga gggaaagatg

20

<210> 92

<211> 20

<212> DNA

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<223> Description of Artificial Sequence:an artificially
synthesized primer sequence

<400> 92
gactgaaaag ttgtgtgtgt 20

<210> 93
<211> 25
<212> DNA
<213> Artificial Sequence

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synthesized primer sequence

<400> 93
catgaaatta ttacagaact acaga 25

<210> 94
<211> 20
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<213> Artificial Sequence

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synthesized primer sequence

<400> 94
agcacctccc cctcctctaa 20

<210> 95
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synthesized primer sequence

<400> 95
ggaactagcc cgtgacgctc 20

<210> 96
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synthesized primer sequence

<400> 96
gagatcgag atgatccaaa 20

<210> 97
<211> 20

<212> DNA
<213> Artificial Sequence

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<223> Description of Artificial Sequence:an artificially synthesized primer sequence

<400> 97
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20

<210> 98
<211> 23
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<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:an artificially synthesized primer sequence

<400> 98
gaagacagct tctgcttggt tgt

23

<210> 99
<211> 20
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<220>

<223> Description of Artificial Sequence:an artificially synthesized primer sequence

<400> 99
aacgtcatgg acgatccgct

20

<210> 100
<211> 20
<212> DNA
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<220>

<223> Description of Artificial Sequence:an artificially synthesized primer sequence

<400> 100
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20

<210> 101
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:an artificially synthesized primer sequence

<400> 101
ttgagttctt ggggatttgt 20

<210> 102
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
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synthesized primer sequence.

<400> 102
tggtacaagc aaagcatgag gaatg 25

<210> 103
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:an artificially
synthesized primer sequence

<400> 103
agctcgagct cgaagatggc 20

<210> 104
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
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synthesized primer sequence

<400> 104
caaacattta aaatataaat catgaata 28

<210> 105
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:an artificially
synthesized primer sequence

<400> 105
taagcccccg gccgaaccgg caaag 25

<210> 106

<211> 20
<212> DNA
<213> Artificial Sequence

<220>
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synthesized primer sequence

<400> 106
gactacaatc ttccactcca

20

<210> 107
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<213> Artificial Sequence

<220>
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synthesized primer sequence

<400> 107
tgtgaactac actatttagt tgctta

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<210> 108
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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synthesized primer sequence

<400> 108
ctgggacttg gaatgtttgt t

21

<210> 109
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<212> DNA
<213> Artificial Sequence

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synthesized primer sequence

<400> 109
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22

<210> 110
<211> 28
<212> DNA
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<400> 110
agtttaacta tatatagcat actgattc 28

<210> 111
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<212> DNA
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<400> 111
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<210> 112
<211> 21
<212> DNA
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<400> 112
gtctatttgg taccactttc t 21

<210> 113
<211> 20
<212> DNA
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<220>
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<400> 113
accgggtagg gaaacaaaac 20

<210> 114
<211> 20
<212> DNA
<213> Artificial Sequence

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<400> 114
aataatactt cggcgcatcg 20